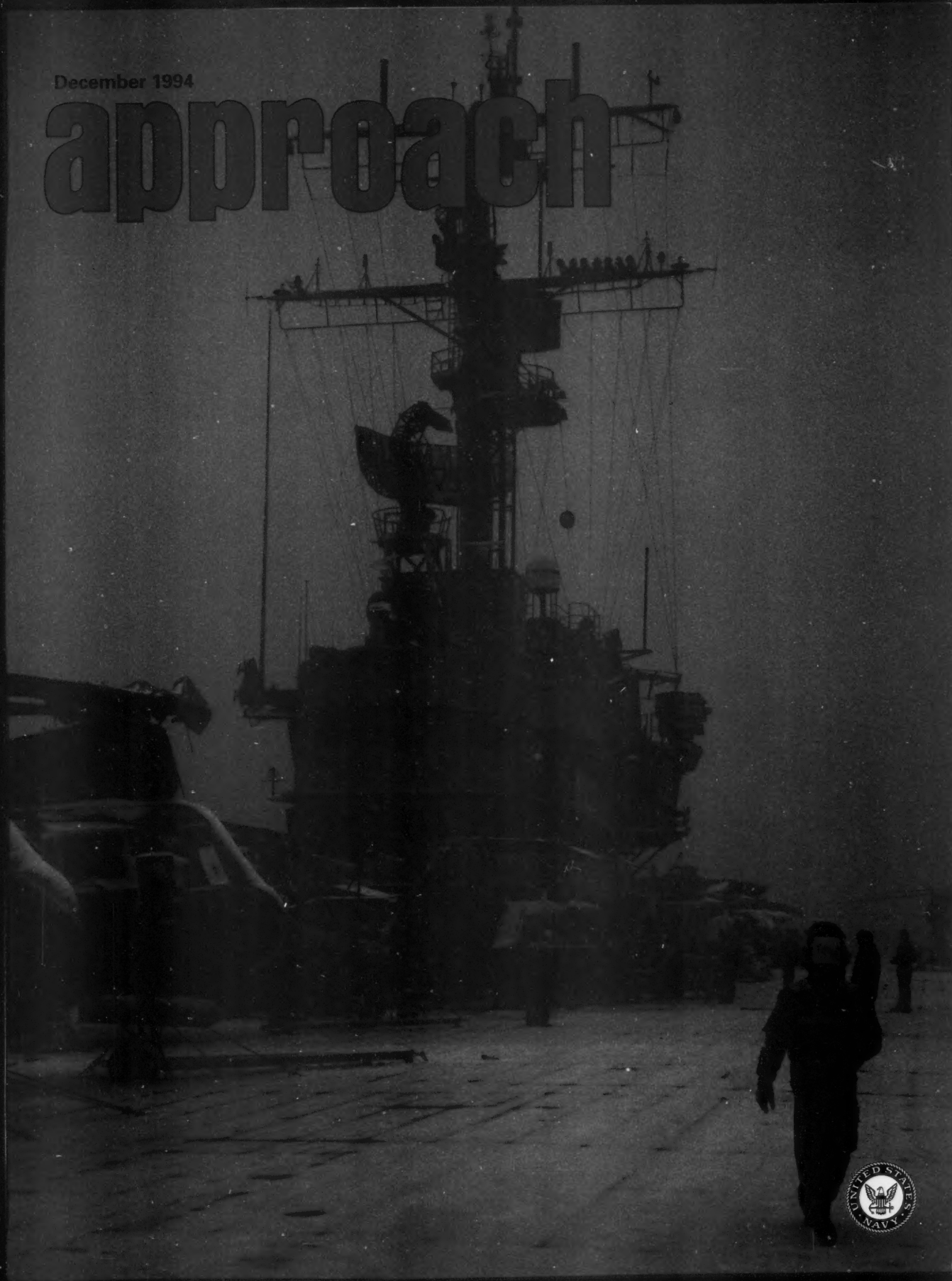


December 1994

# approach



# Some Random Thoughts

## *APPROACH GOES DIGITAL*

You can now download *Approach* articles from two sources: Tecnet and the Safety Center's bulletin board. To use the Safety Center bulletin board, call (804)444-7927. Log on as a temporary user and download two files, PK204G.EXE and REGISTER.ZIP. On your computer you will then unzip the REGISTER file. Send this back to the bulletin board administrator on command letterhead and you will be given full access to the board. It must be on command letterhead or we add your letter to our recycling program.

You can also access *Approach* by joining Tecnet, where I have set up a "bulletin board," which will also carry each month's issue. You must join Tecnet to log onto this bulletin board. E-mail me at "edapprch@tecnet1.jcte.jcs.mil" for info on joining.

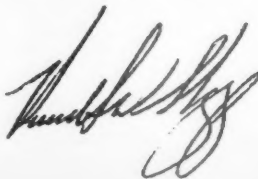
## *SUBMITTING ARTICLES TO APPROACH*

A few notes on making a good first impression:

- 1 Submit double-spaced, left-justified stories printed with anything except a dot matrix.
- 2 Include a disk with WordPerfect 5.1 or ASCII files.
- 3 Please do not fax stories to us. They're not that time critical.
- 4 You can e-mail stories to "edapprch@tecnet1.jcte.jcs.mil."
- 5 No fiction allowed.
- 6 We greatly appreciate photographs.

## *NOT GETTING ENOUGH COPIES OF APPROACH?*

I recently scoured our entire subscriber database. I tried to give similar commands the same number of subscriptions. Our printing budget is shrinking, so I am reducing the number of copies some non-operational commands receive. We appreciate the fact that you like the magazine, but we cannot afford to send 30 or 40 copies of the magazine to commands with only three or four aviators on board. If you feel your command has been unfairly shorted, give me a call at (804)444-7416 (DSN 564).



# inside approach

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**On the cover:** Wintry deck scene  
onboard USS *Guadalcanal* (Photo by  
Maj. Joe Doyle, USMC)

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# Two Engines Out Over Antarctica

By Lt. Mike Brennan

*A*ntarctica! Bone-chilling cold, never-ending wind. Weather that can be CAVU one minute then zero-zero five minutes later. Frequent tap dances in front of the XO can't keep you proficient enough for the thinking on your feet required here. I always thought the true naval aviator was one who could land on a floating postage stamp. But, there are some naval aviators down south here that land and take off in some of the most remote and unforgiving conditions in the world. If you have problems out here and wrecking the plane does not get you, the environment will. Naval aircrews routinely fly into areas where no person has ever set foot. In this great sea of white, even VFR flying is IFR—no horizon, no definition, no depth perception. White on white on white. Words like crevasses, sastrugi, and berms haunt these flyers.

I heard stories of whiteout landings, "Herbies" (Antarctic, 100+ mph wind, wind chill factors off the chart, blizzards), and the ever-famous open-field ski drag and landing.

I was in for one helluva experience that would definitely separate the men and women from the boys and girls. How many people can actually say they have flown on the most mysterious and dangerous continent on the planet?

I woke up at 0300 to get ready for my 0400 brief with the ODO; normally this would be called "zero dark-thirty," but the only time you see nightfall is when you travel 2,100 nm north to New Zealand. My flight today was with the CO. The skipper had more hours in four-engine turboprops than I could dream about. We planned for a typical flight to one of the main science camps about three hours away. The weather for our destination and back home at McMurdo Station was supposed to be good, but an experienced Antarctic pilot knows to file that away because it could become null and void at any moment.

Our mission was to fly a D-4 Caterpillar to the science camp and offload fuel. The preflight, launch, and entire flight to the descent point were all uneventful. On short





PH1 David J. Kruse

final, skis down-and-locked, the No. 3 engine's low-oil quantity light illuminated. The crew opted to land at the camp and investigate when safe on deck. We secured the No.3 engine after landing. Then we pulled the No. 3 fire handle to isolate the oil when the engineer noticed a small amount of smoke coming from the tail pipe.

After much discussion with the flight engineer, we narrowed the problem down to a "probable" leak in the aft scavenge pump. During cargo offload, the engine was allowed to cool down; trust me, this does not take long on the ice. The engineer re-serviced the oil system.

Finally, after spending two hours on deck, snapping two pallets in half, and shearing two winch cables, the D-4 was out of our plane. This typical seven-hour round trip was now extending to eight-and-a-half hours. Since there was absolutely no maintenance support at the remote camp, we decided to taxi out to the hold short on three engines and start up No. 3 for takeoff. We knew we would be transiting the polar ice

shelf on three engines, so we would not be bringing any cargo back to McMurdo.

During the crew brief, we decided to shut down No. 3 engine when safely airborne and climbing. After an uneventful takeoff and passing 800 feet AGL, we secured the engine once again. We figured out our three-engine cruise altitude and fuel for FL240. Passing 15,000 MSL, there was a noticeable flux on the oil pressure for No. 1 engine's reduction gear box (10-15 psi). We began monitoring the engine for secondary indications. Ten minutes later at FL240, the fluctuations increased to way out of limits (100-150 psi). Power-section oil pressure began to fluctuate, too. Oil quantity was visibly dropping (8-5 gals). We secured the engine as required by NATOPS.

I couldn't believe this was happening to me. I would rather be landing in a whiteout back at home field than flying with only two engines across the harshest continent in the world.

After everybody settled down and we notified base of our emergency, we began to

**Since we had  
nothing but time,  
the crew discussed  
every two-engine  
landing contingency.**

figure out our capabilities. We still had full hydraulic input to all our main systems. We computed our cruise ceiling to be 15,000 MSL. The trusty ol' Herc performed magnificently. We were able to maintain 17,000 MSL and 170 KIAS with "normal" power set. This was one of only a few routes that did not cross the mountains. Wow! One thing in our favor: On-top fuel for the now-four-hour transit home would be 7.5K: SOP calls for 7K.

Since we had nothing but time, the crew discussed every two-engine landing contingency. We now knew we had one more thing on our side: the skipper was one of only a handful of aviators to make a two-engine landing, once with two out on the same side, a turboprop driver's nightmare!

We thought about starting up the No. 3 engine on short final. But knowing it had been shut down at -65 degrees Celsius for four hours, we realized we better not. That was it; we were going in on two engines.

Did we want to land on wheels at the sea-ice runway, or skis on the skiway? The fields were within five miles of each other, but the winds at the ice runway were a 60-degree crosswind at 25 knots. The skiway had a crosswind strip right down the wind direction. We had lots of time to decide. Weather observations were given every 15 minutes for each landing site. As we got closer, the winds eventually reduced. We chose the wheels landing on the ice runway. Nobody knew how the aircraft would perform on two engines during a ski touchdown and slideout, plus the skipper had done one on wheels before, although not on an ice runway.

**Did we want to  
land on wheels at  
the sea-ice runway,  
or skis on the  
skiway?**

The crosswind was still evident, but not as strong as we planned for. Considering the crosswind, we would land with minimum flaps. We selected 20 percent, which would give us high rudder-hydraulic boost pressure for better rudder authority.

We landed with 8,000 feet remaining and 141 knots to kill. We did not consider reversing the props on the ice.

With intermittent braking and nose-wheel steering, the aircraft stopped with 2,000 feet remaining. I had just joined the two-engine-out landing club. I'll take a whiteout landing any day over that!

After a thorough inspection, maintenance found that the No. 3 rear-turbine scavenge pump had failed, as well as the No. 1 oil system. After we changed the No. 1 engine and No. 3 scavenge pump, the aircraft returned to service approximately five days later.

The decision to momentarily restart the No. 3 engine for takeoff and later secure it for return to base rather than performing on-site maintenance is not uncommon in Antarctica. The extreme cold and strong winds at remote camps, combined with the high altitude, lack of shelter and total lack of medical facilities, present a greater hazard than a three-engine landing back at home field.

Flying in Antarctica has to rank with bad-weather night traps on the boat. The dangers of Mother Nature and aging aircraft never let you relax and enjoy the true beauty of this continent. ◀

Lt. Brennan flew with VXE-6 at the time of this story. He is currently assigned to VQ-4.

# They Told Two Friends, and So On, and So On!

By Lt. Stephen Pollak

**I**t was a cloudless summer day in Alaska. We were one of two A-6s configured as maxi-tankers, launching out of Anchorage to meet and tank two Tomcats heading south to NAS Whidbey. Anxious to pass our gas, we hoped to hot-pit and make it home for the annual Intruder Ball coming up that weekend.

Takeoff roll was uneventful until the aircraft began a moderate vibration and shimmy at 10 knots past refusal speed. My pilot and I saw dark material flash past the canopy. We gave each other a quick trout look as we became airborne.

The shimmy stopped once off the deck, and my pilot immediately said, "I'm leaving the gear down because I think we blew a nose tire."

We headed northwest of the field toward an unpopulated area, coincidentally near our briefed tanking point. I told Tower that we had blown a tire, and where we would be holding. They later confirmed pieces of rubber on the runway. We switched over to the planned tanking frequency and asked the Tomcats to look us over.

The lead Tomcat reported, "You look OK to us."

Yeah, right, look again! They gave us a closer look.

"Still looks normal," they said. "By the way, can we have our gas?"

Our squadron SOP did not allow tanking while dirty, except in an emergency, and this wasn't that kind of emergency. We went through the procedures for blown tires and stubbed landing gear. As we completed the procedures, we asked to take a field arrestment.

We were discussing our situation with the other A-6 when our skipper came up over tower frequency. Hey, wait a minute. He was back at our home base, not Anchorage! It seems that as soon as Tower heard our request for a trap, they called the base commander. He called his boss in D.C., who called our wing at Whidbey, who called our CO, who was now talking to us.

"Ah-h, hi, skipper. How's it going?" Nice opening.

He asked in that slow Louisiana drawl, "What's up, boys?"

We told him. He agreed with our plan and asked us to call him when

we landed. We trapped uneventfully. I immediately crawled out and pinned the gear and stores.

What we found really surprised us. The port tire, which was a retread, had come apart, partially crushing and tearing the main fuel line and hydraulic lines in the port wheel well. There were fist-sized holes in the inboard port slat, flap and engine intake. The port exhaust and horizontal stab were also damaged. The AOA probe on the starboard side was bent, and there were black scuff marks all along both sides of the aircraft. Pieces of the tire had actually been thrown ahead of us.

What we learned that day was to never discount our gut feelings. Had my pilot decided to clean up after takeoff, we may have had more serious problems. Our gear may have jammed in the wheelwell. We could have lost our hydraulics. There could have also been a fire. Thanks to some great service facilities at the base, the aircraft was up in 36 hours and our FCF crew made it back in plenty of time for the Ball. ◀

Lt. Pollak was assigned to VA-52 at the time of this incident. He now flies with VA-115.

Peter Mersky



# No Latch Match to Close That Hatch

By Ltjg. Brett Cottrell



**W**e had one hour to meet our overhead. Fifteen minutes for preflight, 15 minutes for prestart checklists, and 30 minutes to get to the carrier, plenty of time... if nothing went wrong.

We briefed and went out to preflight. We strapped into Rogue Warrior 433 and continued with the prestart checklists. I was a fairly senior H2P, but, since I was flying with the OINC and going to the carrier for the first time in my career, I concentrated on not making any mistakes.

During the flight-control checks, our computer (along with all the codes for the

COMSEC gear) suddenly decided to drop off line. Things started to get hurried.

I signaled for an avionics troubleshooter to come out to reload the computer. It took about five minutes for someone to show up, and we were supposed to be at the carrier in 30 minutes. Finally, one of the trons showed with the keys to reload the computer.

As I watched, he opened the nose bay and inserted the key. Meanwhile, the HAC, who was flying left seat so I could experience carrier operations from the pilot's viewpoint, was fiddling with the key, trying to make sure we had a good load. The nose bay was





OS2 John Bouvia

shut and the troubleshooter was clear of the rotor arc.

As I completed the control checks, the HAC asked, "Did he get all the latches on the nose bay?" I was sure that this was a simple task; I just wanted to get off the deck.

I replied, "I saw him close it. It looked like he did." No response—he was still messing with the computer keyboards, getting us ready to go. A few minutes later, as we were starting the engines, he again asked if the nose-bay latches had been secured. Then the HAC suggested that maybe I should get out and make sure.

I replied, "As soon as we complete the start checks, I'll hop out and look at them, but I'm sure they are secured."

"OK," he said, and continued working the keysets.

With all of the checklists complete and feeling the pressure to make our overhead time, we asked for a green deck and got it. We lifted up into a hover, reported, "Gauges and lights in the green, fuel good," and continued up and aft.

"Gauges and lights still good, cleared to pedal turn left." As we were halfway through the pedal turn and about to depart, the LSO with his keen eye and sixth sense yelled, "Hey, you've got a latch or something flapping up and down on your nose bay!" The OINC glared at me and muttered a few expletives not fit to print. We asked to set back down on the deck, and one of the flight-deck personnel hurried out to secure the latch. Even though we had wondered about the nose-bay latches a couple of times, had two pilots and one aircrewman onboard, and one LSO, one LSE, two chock-and-chain men, one flight-deck safety director, and the troubleshooter on deck—nine sets of eyes looking at the aircraft—we had still launched with the nose-bay unsecured. Only the LSO's last-minute call saved us from possible aircraft damage, if not the complete loss of the helo or crew. ◀

Ltjg. Cottrell flies SH-60Bs with HSL-42's Det 4.

*If you don't think having various parts departing the aircraft is a big deal, here is a graphic example. A helicopter crew completed a GCA approach and waved off into the downwind leg of the landing pattern when their helo's main transmission and rotor system departed the aircraft! Investigation revealed that the left-door assembly on the center nacelle had separated and been sucked into the rotors, which caused the loss of the rotor blades and main transmission. One of the causal factors was an improper preflight by both pilots.—LCdr. Paul W. Romaine, Naval Safety Center H-2 and H-60 analyst.*

# Paddles Contact

By Lt. Ross Slavin

**A**s we left our night AIC radial and headed for marshal, I pondered the upcoming approach, blue water ops, and the darkness. Sound familiar? Up to this point, the hop was anything but organized. You would think the standard night AIC mission to an OK 3-wire would not be that difficult. However, if you launch the spare in addition to the scheduled players, add two new controllers, and change the AIC radials, guess what: SNAFU!

Tonight, my airplane was having an assortment of CADC and radar problems as well as recurring roll-stab lights, which were becoming a nuisance, but nothing we couldn't handle. The mercifully short 1+00 cycle concluded the follies early, and in no time, we found ourselves back in the marshal stack.

As we pushed, I couldn't help getting the feeling that I was slipping behind the aircraft. One of those things you can't attribute to

anything; I guess you never can. As we dirtied up at eight miles, I felt further behind. The aircraft had a slight roll to the right, and I noticed our roll-stab snakes had crawled back in the cockpit. I was not getting the usual positive roll response and the stick was feeling rather mushy. You can guess what happened next. I started chasing lineup while trying to figure out what was wrong with my jet.

Altitude dropped completely out of my scan, and the Tomcat continued on the approach with me getting further behind.

At one-and-a-half miles, I heard the ominous, "Paddles contact, you're low!" It was as if I had awakened from a daze. The glideslope needle was rapidly traveling toward the top of the VDI. I had been so intent on determining the problems in the cockpit that I had gotten to the point where the jet was out of parameters, and we still had more than a mile to go.

# You're Low

"You're low!" rang through my helmet (which was nearly an inferno) as I pushed the throttles to military, hoping to salvage the approach. Looking out for the first time to see if I could hack it visually, I saw lineup just starting to get under control as the ball went off the top of the mirror. At three-quarters of a mile and with no chance, Paddles waved me off.

As we climbed into the bolter pattern, it seemed unusually quiet in the cockpit. I quickly thought about what had happened and went back to the fundamentals. I concentrated hard on basic airmanship and began to feel like I was catching back up with the jet. The roll-stab fires were out, and I could trim the aircraft up with some work, although the stick was still sloppy. This time I worried about flying first, not troubleshooting. We trapped on the next pass like the first one had never happened.

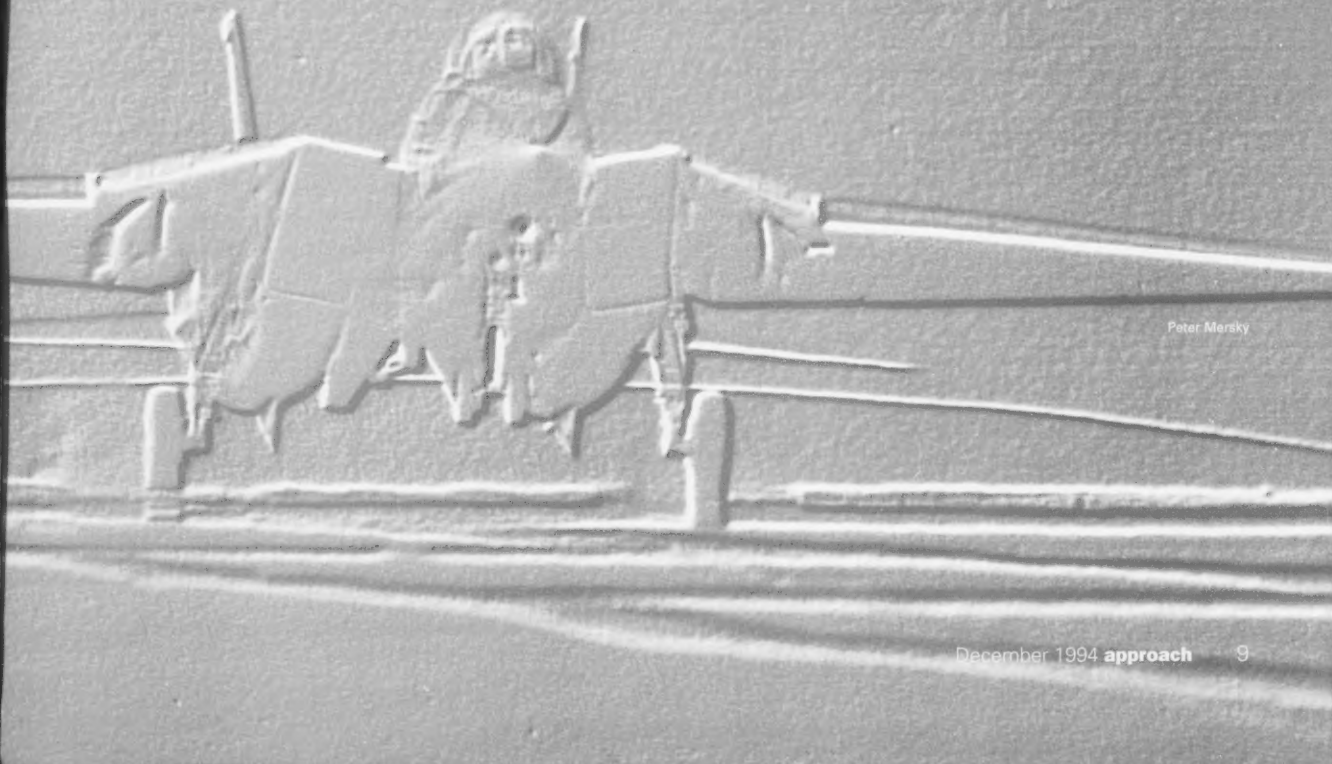
This was the first (and I hope the last) time I will ever fall that far behind the priorities of flying the airplane. It did not bring good results. To begin with, this was my seven-day currency hop and only my second needles approach in months. Also, both fighter squadrons had just joined the wing as the first Tomcat squadrons forward deployed. Therefore, we now found ourselves with no simulators, and the only needles to be found in the Far East are on Mother. My standard night AIC hop was far from standard.

There were a few options available. Perhaps the most obvious one was not troubleshooting control gremlins while simultaneously doing a CV-1 approach. Although we were blue water, we had plenty of gas to take it around, fly the airplane, figure out the problem, then concentrate on the approach. It worked the second time. ◀

Lt. Slavin flies with VF-154.



PH2 John Bivens



Peter Mersky

# Did You Get the Number of That Truck?

By Ltjg. Quincy F. Hazlett



**F**inally, after two years of flight school, my dreams of landing on an aircraft carrier were about to become reality. I could see a light at the end of the tunnel, and I had no idea it was really a Mack truck that was about to run over me.

We had been flying at a frantic pace, trying to make our boat date. Things finally fell into place for me in late CQ, and the next thing I knew, I was on a C-9 to Key West, listening to my LSO say something about lineup being harder at the ship, and thinking, "Yeah, right, how much harder can it be?"

The next 12 hours were a blur. All I remember was telling myself not to be nervous, which had the opposite effect. I didn't sleep well, and it seemed just as I fell asleep, I was dragging myself out of bed for the first brief of the day.

During the brief, I tried to absorb everything my leadsafe told us, and I started to relax a little. Things were looking good.

I was flying out to the boat with a leadsafe I knew and trusted, along with two squadron bubbas. We finished the brief with time to spare, so I tried to make the best of it (I was starting to get nervous again). Read the book, head call, eat something, head call, check my gear, head call.

At last, it was time to walk. I was getting more nervous and excited as each second passed. I preflighted my jet, gave a thumbs-up to my flight lead and climbed in. As I was getting in, I saw a loose indicator I hadn't seen before and asked the plane captain to check it. I berated myself for missing it the first time around and checked to see if I was too far behind the rest of my flight. Damn, somebody already had their battery on and was starting engines. I hate to be the last one to start up, so I began to rush.

I got strapped in and started No. 2 engine. I introduced fuel, checked my fuel flow, and started counting for lightoff





"...14 ... 15 ... shoot, wet start." As I was doing my emergency procedures, I thought, "Great, all I need is a start malfunction my first trip to the ship."

The plane captain signaled for an APU and I started No. 1 to give 2's starter a rest. No. 1 started up just fine; it was time to give No. 2 another try.

Unfortunately, I got another wet start. It was time to get a new jet. I checked to see how far my playmates were (they were with their final checkers), grabbed my gear and jumped out. I tried to explain to my leadsafe with hand signals that I had to get into another jet, and I got the infamous "Well ... do it!" signal back from him.

I hurried over to another jet, tossed my gear in and started to preflight. Another instructor came by and told me to jump in while he preflighted for me. I quickly strapped in and began the start sequence. I knew the rest of the flight was waiting on me, and to really help things out, I dropped my pencil. The plane captain, complete with legs waving in the air, couldn't reach it, so I had to unstrap and get it myself. By this time, I was an absolute mess mentally, but somehow, I managed to get everything done, and we were finally on our way out to the ship. I didn't perform up to par that day.

I had a little problem with lineup (imagine that!), and my LSOs later said things like, "You sounded really nervous on your ball calls," and, "Gee, you did so awful the first day, I didn't think you were going to qual."

When I finally got back to the beach, after logging 4.9 hours, all I wanted to think about was how I was going to dig myself out of the hole I was in. I shut down the jet, postflighted for FOD, gathered my stuff and headed in.

As I was walking off the line, a plane captain came up to me, grabbed my arm, and asked me if I was a little nervous that morning. Then he told me what I had done.

I never shut down the No. 1 engine on the first jet! I couldn't believe I had done something so unsafe and unsat. Fortunately, no one was hurt, nothing was damaged, and the plane captain had shut down the engine after I left.

I have thought a lot about the events and my actions that led up to my error, and I have learned several lessons. First, when stress loads become high, it stands to reason that human error is going to be more prevalent. To combat this, we all have a checklist and procedures for almost every situation. I discovered that I had been relying on memory, which works until the situation becomes unusual. I will be more careful and thorough with my checklists from now on, and will review them if I get the time.

Second, I learned compartmentalization is not just a tool to keep our non-flying lives out of the cockpit; it is also a tool to help us prioritize our flying task in the cockpit. I failed to stick to the task at hand because I was worrying about everything that came after the engine start. If I had just taken things one step at a time, again, I would not have missed the fact that I was climbing out of a still-turning jet.

My third point dovetails with my second point: my priorities that morning were completely screwed up. I was worried about everybody else, our overhead time, and what my leadsafe was thinking; in other words, I was worried about everything I shouldn't have been, and neglected what was really important. ◀

Ltjg. Hazlett flies with VT-4.



***I couldn't  
believe I  
had done  
something  
so unsafe  
and unsat.***





# Eight Steps

By Lt. Ken Skaggs

**1 Inspiration:** The skipper turns to me in the department head meeting and says, "Boz, I'm tired of having safe-driving lectures at every safety stand-down. How about you find something related to summer. You know, swimming, picnics, boating, lawnmowers, something like that."

**2 Enthusiasm:** "Sure thing, skipper. I can set up something different." Sounds good, I'm thinking; my JO buddies will appreciate something new. Besides, I can't remember the last time I attended a safety standdown that didn't touch on braking distance and BACs.

**3 Disorganization:** "Hey," I say to my ground safety officer, "the skipper wants something on summer recreation at the next safety stand-down."

"Like what?" he asks.

"I don't know, but he mentioned boating," I reply, giving us both the warm and fuzzy that we were providing what the old man wanted.

A week later, the ground safety officer reports, "No one on this base does boating safety. How about that state trooper and the drunk-driving lecture?"

"Nope," I immediately answer. I answered quickly because I knew your average department head wants to appear decisive more than he wants to be right. "Try getting the

Peter Mersky

# to a Snoozer Stand-Down

Coast Guard Auxiliary or someone like that."

**4 Chaos:** All 263 members of our command are seated comfortably in the theater when the lecturer, seeking to establish a rapport with his audience, asks, "So, how many of you own boats?"

There's a snicker as a total of two hands go up, both single junior officers.

The lecturer bravely forges ahead, confident that his uninspired speaking style will overcome the lack of common ground between him and his audience. Meanwhile, I feel my stomach start sinking as I sit beside the skipper in the front row. My ground safety officer—who is no dummy—has adroitly arrived late and seated himself at the back of the theater with the rest of the JOs.

After an endless 45 minutes of safe boating minutiae, my skipper turns to me and whispers, "Get this guy out of here."

I start motioning, trying to get the lecturer's attention and give him a "wrap it up" signal. He doesn't see me, of course.

The CO hisses, "Boz, get rid of him now! The whole squadron's asleep out here."

The speaker plays a recruiting film (starring the dynamic Walter Cronkite) as I slowly stand up and

walk toward the stage. As I discreetly climb the creaky wooden steps to the stage, I notice a few members of the audience come alive to see what I'm doing. I stand there for a minute, hoping the lecturer will get the hint that we need to wrap this up due to our imminent deployment to anywhere outside this theater.

The skipper gets agitated and starts making a "hooking signal." Now the audience is focused on me, as I walk over to stand beside the lecturer. His concentration on his speech is total, and I see Sailors nudging their buddies awake to see how I'm going to handle this situation. Great! Now they pay attention.

I finally walk up to the speaker and say, "Sorry, we've got to wrap this up."

He looks startled. "I was just finishing anyway," he says, and begins gathering his materials.

**5 Search for the Guilty:** "Boz, I'm going to kill you," a very unappreciative JO tells me.

"Boz, none of that applied to us," another JO chimes in.

"Boz, whose stupid idea was this, anyway?" the skipper asks me.

**6 Punishing the Innocent:** "Boz, you're taking over the Av-Arm division," the XO informs

me. "You need some maintenance experience, and I've got an opening down there. Besides, we've got a new lieutenant commander coming in who needs a department, so don't feel like this is a demotion."

**7 Ambiguous Claims of Success:** Fitrep time and I write this bullet on my brag sheet:

"Aggressive, imaginative, innovative. Coordinated an extremely successful safety stand-down, which highlighted the dangers of recreational boating. Resulted in heightened awareness of safe boating procedures applicable to a significant minority of squadron personnel."

**8 Definition of Requirements:** Six months later, the skipper turns to the new safety officer and says, "Listen, I'm tired of always having the same old safety subjects at our standdown. See if you can find something unique to talk about."

"Sure thing," the new department head says. "I'll set up something different."

"Not so fast," the skipper replies. "Find something that applies to most people in the squadron. The last knucklehead I had here set up some sort of boating lecture, and practically no one owned a boat." ◀

Lt. Skaggs is the editor of *Approach*. No, he wasn't one of the two JOs who owned a boat.

# Superman Gets

By Lt. R. Kevin Adcock

**"D**o you mind if I take this one in? I need a night bounce to get up to speed."

"Sure. You have the controls."

It was Fleetex 2-94, and there was plenty of tasking for our SH-60Bs. Another long night of ASW, and Magnum 453 was thirsty. I was the H2P, sitting in the right seat, and the HAC played the ATO game on my left. The entire three-hour hop had me at the controls, but the HAC wanted to take us to the boat for a night freedeck—not an uncommon phenomenon. Flight quarters was 10 minutes old, and we were five minutes out. I passed control. I had flown with this HAC many times with no worries. Tonight was going to be different.

One mile out, the signs began to appear. We began to slow excessively; the HAC corrected on cue. At half a mile, we began a slow descent from 200 feet, ostensibly to 100 feet to fly the SGSI. However, the insidious descent crept through the radar century mark.

"One hundred feet, 90 feet, 80 feet, no lower! Seventy feet! Power! Power! Power!" I called, each word increasing in urgency.

Power came in, and we stabilized at 100 feet. I made light of the situation to placate the HAC, who I assumed had experienced a mere breakdown in scan. He shot a nice approach to a high hover over the flight deck, and the anxiety level was abating as the aircrewman began conning us toward the port RSD.

As we began our descent, we also began a severe aft drift.

"Easy forward, easy forward, sir," the crewman warned, "you're drifting aft. Bring it forward."

Hesitation on my part saw us nearly touch down on the aft missile launcher—twice! Suddenly, the HAC responded to our calls and regained his composure. We stabilized. Without hesitation, he recovered and dropped the probe directly in the trap. "Trapped, red deck," were welcome words from the LSO.

The story should end here, but the fun was just beginning.

After approximately 20 minutes on deck for head calls and a hot refuel, we mounted up to re-start our ASW prosecution.

When I asked, the HAC said he was fine. The OINC asked me in the hangar what had happened, but I wrote it off to lack of recent night time around the boat. Secretly, I wondered myself. I assumed, as usual, the departure would be to port, and I would orchestrate from the right seat. Winds were to starboard, and the HAC once again found himself at the controls. Green deck. We lifted and held a solid hover over the deck.

I checked the gauges, and called, "Easy up, easy back," just like always. Everything was groovy. At this point, I realized I had failed to position my left hand on the fuel-dump and stores-jettison buttons as a precaution. I turned my head ever so slightly to do so, and returned it to find the ship disappearing as we launched in a straight vertical climb on ship's heading. One hundred feet was



# s Vertigo

quickly approaching. The world rushed by, but time was standing still.

I bellowed, "What are we doing? Where are we going? Are you OK?" The affirmation finally came of what I had probably suspected all along.

"I'm all messed up. You have the controls; I've got vertigo."

The fun meter hit zero, and the tension meter pegged. We were passing 150 feet in a near-1,000-fpm climb as I took the controls, turned from the ship and nosed over to resurrect some airspeed. I gained little comfort from my suspect knowledge that the Aegis cruiser's mast topped out at about 130 feet.

I just wanted to climb and clear the scene. The ops-normal call was a little late, but together, we managed to fly away unscathed. I retained control for the remainder of the mission, which in light of recent events had dropped quickly from the list of top 10 things I'd like to be doing.

In retrospect, crew coordination was appalling. The HAC never confessed, and I never asserted. We brief vertigo before every flight, but you have to say what you mean and do what you say. Vertigo is not a dirty secret to hide from your friends, particularly when everyone's lives are in your hands. Brief vertigo procedures before flying, and adhere to them. The cockpit is crowded enough without a couple of large egos, and if you cop a "Superman" aviator attitude, vertigo may just be your kryptonite. ◀

Lt. Adcock flies with HSL-44's Det 9.

Lt. R. Kevin Adcock



# The Case of the Twelve-Ton Load

By 1stLt. Arthur S. Snow, Jr., USMC

**T**wo weeks before I was to go home with the advance party from our unit deployment to Okinawa, one of our HACs and I read a frag sheet telling us we were to lift a 7.5-ton crane the following day. We discussed NATOPS and rigging procedures that afternoon. After clarifying some questions about the external load systems, we decided that because of the load's length and aerodynamics, we would lift it using the dual-point system (two hooks attached to the airframe, 10 feet apart, along the longitudinal axis).

The next morning, I computed our weight and power with a 15,000-pound load, because the frag sheet indicated 7.5 tons for the load's weight. I walked out to the aircraft to meet the HAC and found avionics troubleshooters still working on our right auxiliary fuel tank. The tank was full with approximately 4,500 pounds, but the gauge read zero. We could not fix the gauge, but the CO gave us the OK to launch.

We didn't cover operational power checks and 750-degree engine checks in the brief, so I asked about them before climbing into the cockpit. My HAC said we would do them en route to the pickup zone. Storm cells surrounded the field, but we launched VMC.

As we dodged weather, our base was trying to get a PIREP from us. Naturally, radio problems added to

the confusion. During these few minutes between departure from MCAS Futenma and turning toward the LZ, we were sneaking through weather, troubleshooting radio problems, and trying to navigate.

While all of this was going on, I forgot about the operational and 750-degree checks. When completed, these checks let the pilots know if they have underpowered engines and what their max power available will be without exceeding engine limitations. The HAC had done these checks two days before and felt comfortable enough with his results to forego them that day.

When we arrived at the pickup point, heavy rain forced us to land in the LZ rather than make a pickup. I told the helicopter support team to reposition the crane into the wind line. After the storm passed we hover-taxied over to the load, picked it up, and flew around the pattern once.

The HAC remarked, "This is a very heavy load."

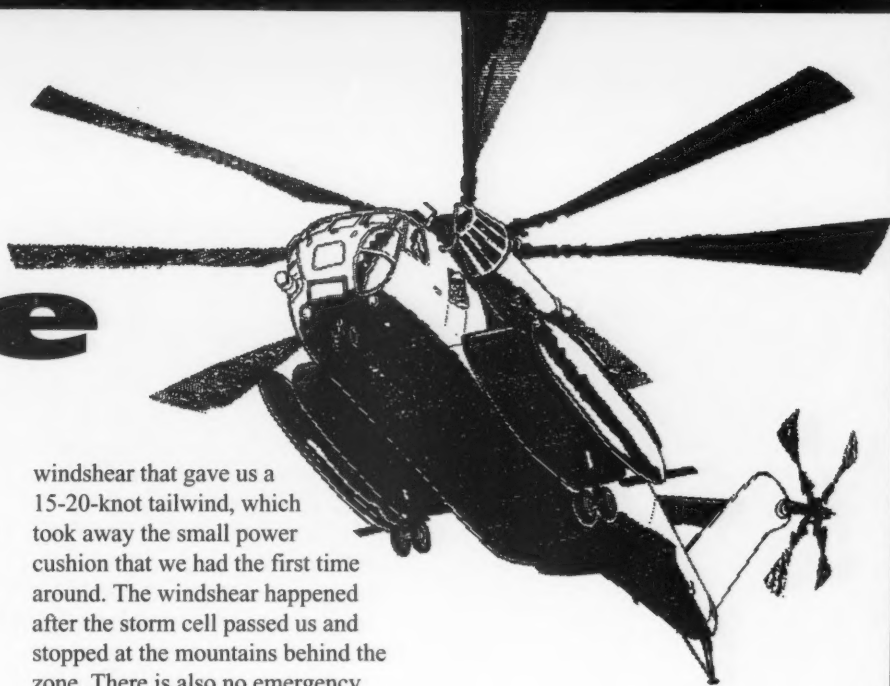
In the transition to forward flight, the aircraft required 122 percent torque. The weight and power computation indicated that the most that would be available was 117 percent torque. The first dropoff approach was high and slow. I called for a waveoff and the aircraft commander took it around the pattern again. The second approach was controlled and uneventful.

During the next lift, I had the controls. We hooked up and transitioned to forward flight. In the transition, I could not stop our slow rate of descent. The collective was full up, hitting the collective stops. I said that we needed to pickle the load as we continued to descend. The HAC delayed the pickle for quite some time as the trees got closer and closer. (He later told the HST leader that he wanted to put it closer to the paved road in front of the zone). Finally, we started losing tail-rotor authority as the nose yawed right. We were descending through 100 feet, rotating to the right and accelerating. Our aerial observer had stopped yelling, "Power, power, power!" and was now screaming, "Pickle, pickle, pickle!" The HAC finally pickled the load.

Obviously, our power required was immediately reduced. The full left pedal used to try to maintain directional control now put us in a rapid left rotation. As I countered the rotation, the HAC got on the controls, and two or three full turns later, we were back in controlled flight, approximately 100 feet above our pickle altitude of 50 feet. We remained on station for 15-20 minutes to survey damage and to ensure no one was injured. We then landed back in the zone to inspect the aircraft. We couldn't see anything wrong, and we returned to base.

Never accept old engine performance data. Always do your power

# the Pickle



checks close to the environment in which you will conduct the lift. Ensure HST gives you a Zippo brief before landing in the zone. When 122 percent torque was required, we should have knocked it off to recompute and take another look at the load. The right auxiliary tank was full and we figured that into our calculations.

Not having the gauge did not present a problem. Squadron SOP did say, however, not to do externals with inoperative auxiliary fuel-tank gauges unless the auxiliary fuel tanks are drained and disabled. SOP also said that a fully operational CG/hook load-indicating system wasn't needed to do dual-points. The CG/hook load-indicating system will show the pilots the aircraft's center of gravity and how much weight each of the two hooks is sensing.

The Mission Essential Subsystems Matrices System (MESMS) says that an aircraft with no CG/hook load indicator is partially mission capable for dual-point externals. A fully operable CG/hook load indicator is now required by our SOP.

Another valuable bit of information is that even if the frag sheet says a 7.5-ton crane weighs 7.5 tons, do not take it for granted. A 7.5-ton crane actually weighs around 25,000 pounds, while its *lifting capacity* is 7.5 tons.

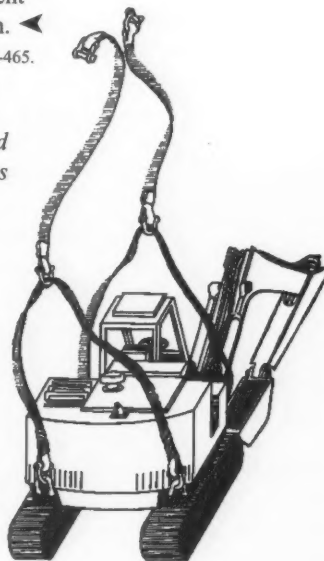
On our first lift, HST said we had a 15-20-knot headwind; on our second lift, however, we had a

windshear that gave us a 15-20-knot tailwind, which took away the small power cushion that we had the first time around. The windshear happened after the storm cell passed us and stopped at the mountains behind the zone. There is also no emergency procedure for loss of tail-rotor authority in CH-53E NATOPS.

Weather played an enormous role in the events of the day. It helped us lift the crane the first time and made us have to pickle it the second time. Fortunately, it wasn't our time to go, and we are able to tell others about our experience. Never underestimate the effect that your ever-changing environment can have on your mission. ◀

1stLt. Snow flies with HMH-465.

*During the last 14 years, we have had six Class A, two Class B, and six Class C flight mishaps where power required exceeded power available, all because of improper weight-and-balance computations or unknown payload weight. We can use ACT to help prevent future mishaps in this area.—Cdr. Charlie Hilton, Head, Rotary Wing Branch, Naval Safety Center.*





# It's Good Not to Hit the C

By Lt. Dean L. Coester





**P**icture one of those beautiful crystal-clear, January days where you can actually see the Sierras from NAS Lemoore. Our flight was briefed as a two-plane bombing hop up at B-20 in the Fallon ranges, concentrating on low-level ingresses to Hornet "cool-pops." My flight lead was a salty JO division lead, and I was a relative new guy with about six months in the squadron. After the standard brief, man-up and launch, we were off to Fallon.

The beauty of the Sierras was awesome. Fresh snow covered the entire range. Check-in to range control and initial set-up proceeded without a hitch. We planned to fly a short low-level route at 200 feet AGL in the B-20 basin and ingress to our planned pop points.

Upon arrival, I saw that the entire B-20 range basin was blanketed with fresh snow and remarked to my lead that I'd never flown over snow before. The bright sun glinted off the snow and the mountains.

The first two runs went exactly as briefed—combat-spread run-ins, RADALT set at 180 feet, producing good hits. The third run included a lead change and at Point A, I assumed the lead. Again, everything went smoothly, and I was feeling good as I pulled off target at 5,000 feet AGL.

Turning toward Alpha with my wingman close in trail, I began a slow descent to set up the next run. We then discussed the cool-pop parameters to compare data. Suddenly, I caught a glimpse of the ground from the corner of my eye just as the aural warning screamed, "Altitude, Altitude!"

I buried the stick in my lap and plugged in the afterburner as I pulled the nose up. I could have sworn that I was at least 2,000 feet AGL in a slow descent instead of 180 feet AGL and about to die. My wingman behind me bottomed out at 500 feet AGL and was about to transmit a warning when he saw me pull up. Completely shaken, we decided to knock-it-off and RTB for a thorough debrief.

Analysis of my HUD tape showed my aircraft in a two-degree nose down descent. I bottomed out at 120 feet AGL. Somehow, the data gathering and discussion distracted me and I let altitude get out of my instrument scan. I relied on how high I appeared to be and figured I had plenty of altitude.

I was the victim of a major visual illusion. The flat, bright snow, combined with the lack of a horizon reference (we were below the mountain rim surrounding B-20), caused my false sense of altitude security.

In the past, I could never understand why pilots flew perfectly good airplanes into the ground, but I had almost done the same thing. Only luck and a RADALT saved me from becoming a statistic that day.

A few of the lessons I learned are:

1. I should never have been flying at 200 feet AGL over snow with little horizon definition.

2. My RADALT doctrine broke down as I never reset it higher for my cool-pop drop parameters.

3. I relied on my eyes to tell me how high I was and let my altitude scan break down.

4. I was taken in by the beauty of the scene and wasn't concentrating enough on the task at hand.

Fortunately, my descent was shallow, my wings were level, and the RADALT worked. My wingman said that he was also fooled by the same visual illusions and reaffirmed the fact that the wingman should always fly above the lead. He could easily have followed me in for a double tragedy.

During physiology training, we are told about the hazards of visual illusions, but I always thought that meant small bushes looking like trees or over-water flights; bright snow never occurred to me.

At our next APM, I stood up and told what had happened. The consensus was that this scenario could happen to anyone. A continuous low-altitude training program should include aeromedical as well as physiological aspects of visual illusions and terrain avoidance. ◀

Lt. Coester is a former SERGRAD and now flies with VFA-25.

round

# Galactically Stupid Green Ro

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*We asked if  
they could  
hear our  
rotors and  
they said  
no. Great!*

---

**Y**es, it's true, safety officers are not immune to occasionally doing the unsafe thing. The event I was involved in not only nearly cost my squadron a good airframe but, more importantly, could have cost four lives.

I was fresh out of safety school and participating in my second of two combined-arms exercises in that lovely paradise we call Twentynine Palms. The operations officer had been letting the younger members of our squadron brief and lead the missions.

When my time in the barrel arrived, I was assigned to lead the transport flight for a six-plane launch "sometime the next day." So, with my blood pressure at an all-time high, the air mission commander (also a fellow first lieutenant) and I set out preparing our briefs and planning our mission.

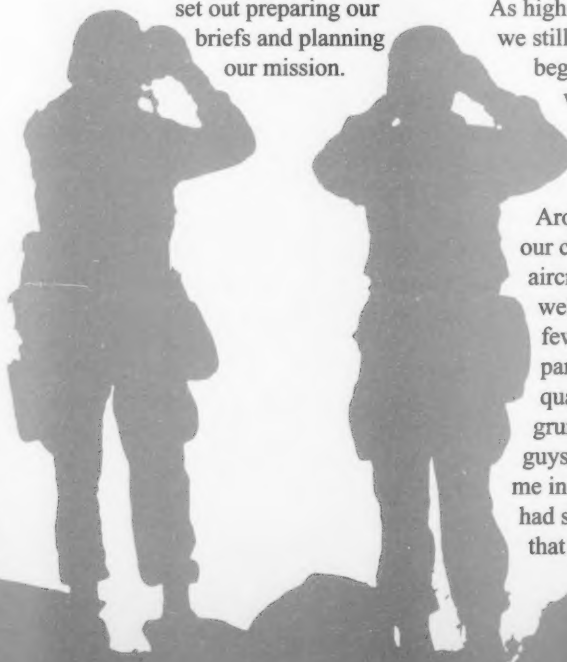
The brief was for 0800 the next morning, and we stayed up until the early morning hours preparing. What was that about eight hours of uninterrupted rest before a flight? But this was a big mission. I can handle it.

I awoke the next morning at 0600, ate breakfast, and reviewed my brief one last time. Not only was my CO going to be listening but the Group CO and Group XO as well, so I had to get it right.

Fortunately, the brief went well, and I settled down to await our on-call mission. For those of you who have not had the good fortune to visit Twentynine Palms in August and September, the temperature climbs to 115 to 120 degrees by 1000 and stays there all day. This is a good vacation spot for those of you who enjoy spending time in a blast furnace.

As high noon rolled around and we still had not been called, I began to worry if we ever were. The heat was starting to take its effect on people, and I was no exception.

Around 1400, we finally got our call and manned our aircraft. The mission went well with the exception of a few rookie mistakes on my part, such as landing a quarter of a mile from the grunts and making the poor guys hump their gear over to me in that heat. I'm sure they had some kind words for me that day.



# Looking For Little Recon Guys

By Capt. John Allen, USMC

As we delivered our mighty men of death to their designated zone, I began to look forward to getting back to base and climbing into my horizontal time accelerator for some much needed rest. Not so fast, Junior. Our operations officer said that another squadron's aircraft had gone down in the chocks and that me and the HAC I was flying with were to pick up their mission. We were fragged to move a recon team from the top of one obscure mountain to the top of another obscure mountain.

"Oh, by the way," the ops officer added, "you'd better take your NVGs with you. It will be getting dark soon."

For the life of me, I couldn't figure out what that was on the side of my head. It felt like somebody's knuckles hitting me. I thought I heard someone saying, "Hello? Hello, McFly!" But I'm a hacker, I can handle it.

My HAC and I briefed, manned up, and launched. My HAC was on the map, and I was flying. We navigated to the position where we thought the recon team was. We were talking to them, but there were no little green recon guys in sight. We asked if they could hear our rotors and they said no. Great!

We droned around for a while. By this time, we were on the goggles, and it was rapidly becoming a low-light night. The HAC asked me to take a look at the map to confirm our position. I deduced that we were about six clicks north of

where we needed to be, not because I am a Lewis-and-Clark equivalent, but because I had remembered dropping the team off there the day before. Oh no, not that place! That mountain top was hairy enough during the day. I voiced my concern to my HAC, but he didn't seem to care at the time.

What was that flashing on and off? Our first low-fuel caution light had just come on. I wasn't too concerned because the Frog still has 20-25 minutes of fuel left when the light first comes on.

Our approach was to a very narrow saddle with our blades coming extremely close to one of the sides. My HAC was still at the controls and made a smooth approach as I completed the landing checklist. Once we were in a stable hover, the crew chief cleared us below to land.

As my HAC began to set the aircraft down we began to slide. There's nothing like that good ol' feeling of sliding down the side of a mountain in your trusty Frog. I yelled over the ICS, "Pick it up, pick it up!" as I heard the faint sound of something that sounded like a vacuum. I saw my seat cushion disappear before my very eyes.

"Waveoff, waveoff," I said firmly. I was really getting worried at this point and again voiced my concerns to my HAC that we try one more time, and if that doesn't work we call it a night. No response.

We made another approach, this time our observer's goggles went out. Another waveoff. What was that I said about one more approach? We made a third approach and started that sliding thing again. My HAC picked it back up and asked the crew chief if this would be better if we did a main-mount landing. The crew chief replied that it would.

So, as they say, there I was, in my 14th hour of crew day, low-light goggles in the desert, our nosewheel hanging off the edge of the mountain, and one low-fuel light. As we were balancing there, my HAC got on the radio and told the recon guys, "Get on, quick." The troops did as they were told, and soon we were out of there.

Unfortunately, I called the team leader up to the cockpit and took my frustrations out on him when I should have been beating up on myself for letting us get into that situation. I was the safety officer, for crying out loud.

By this time, we had two low-fuel lights, and time was getting short. We quickly found our drop-off point, let the recon team off, and headed for home. When we arrived back at base, I discussed the flight with my HAC and crew chief. We all agreed that what we did bordered on the galactically stupid. However, neither the crew chief, and more importantly, nor I, had put our foot down and said, "I'm not comfortable with this." ◀

Capt. Allen flies with HMM-162.

# Vertigo Always Spikes My Blood Pressure

I recall thinking to myself after an FCLP brief that the FRS instructor's sea stories made night carrier landings sound like a super-harrowing, if not next-to-impossible experience. I had been in the F-14 FRS for eight months and only had to CQ before I headed to my first fleet squadron. Although only a jaygee, I had previous flight experience with what I thought was considerable night time.

I had flown night FCLPs at San Clemente, which is essentially "at sea," and night flying just wasn't that difficult. I guessed the older guys just like to make what they do sound extremely difficult so that their sea stories are more interesting.

On the first morning of CQ, I was nervous—not as nervous as before my first CQ in the training command, but more than casually concerned.

Day CQ went well, which eased my apprehension about the coming night work. As a matter of fact, while holding in marshal with a bright full moon overhead, my attitude was jovial. My instructor and I discussed what kind of refreshments we would have the LSO buy us once we won our landing grade bet. Several deltas later, we finally started our approach. Our jovial attitude was about to take a drastic change.

Turning to final bearing, we entered an overcast layer and broke out several thousand feet lower at 1,200 feet. It was darker than I had

ever seen. The next thing I noticed was my VDI (main attitude indicator) showing 30 degrees right wing down when my wings were level.

I checked my standby attitude indicator; it also was 30 degrees right wing down. What a time for both attitude gyros to go bad with identical failures. My instructor told me that he was "fouled up." In other words, he had vertigo.

"Great," I thought as my blood pressure spiked higher. I noticed I was leaning to the point where my shoulder was pressed against the canopy rail. It finally dawned on me that I also had vertigo and maybe my attitude gyros were accurate. I remembered the aviation physiology instructor teaching us to believe the flight instruments. As unnatural as it felt, I forced myself





to believe the VDI. I decided not to tell my instructor that I had vertigo since he was sufficiently terrified.

Adding to my trauma was the realization that I wasn't able to keep the airplane anywhere near desired altitude, heading and airspeed. The instant I took my eyes off the VDI to scan airspeed and altitude, I rolled into a 30-degree bank. Although not typically an auto-throttle user, I engaged it because I was disoriented, and it would obviously do a better job maintaining speed. Even with auto throttles engaged, I had trouble maintaining glideslope and course.

We called the ball at three-quarters of a mile, at which time I transitioned my scan to the ball and proceeded to drive it off the top of the mirror by the in-close position.

Naturally, I was waved off and went into the bolter pattern. At this point, I not only had vertigo, but I was concerned about whether I could qualify.

My vertigo eased during the trip around the bolter pattern, but just flying straight and level was hard. The next pass, I got to a reasonable start and managed to at least keep the ball on the mirror. I caught the 4-wire.

By the time I refueled on deck and launched for my next pass, the vertigo had completely gone. The rest of CQ was uneventful (relatively speaking). I could now relate to those sea stories the instructors told.

What did I learn from this experience? When vertigo strikes, admit it to yourself and anyone

who can help. You must believe your flight instruments and not your instincts.

Use autopilot as much as possible to keep the airplane straight and level which, in turn, will help relieve your vertigo.

My instructor's comment about being disoriented didn't help me. He might have phrased it differently. If I had admitted to him that I had vertigo, he wouldn't have thought I was capable of more than I really was.

Adjust mirrors and lights before entering clouds to help prevent vertigo. Train hard to enforce the basics so when vertigo sets in, your habit pattern will prevail. ◀

*LCdr. Rominger flies with VF-211.*

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# Bravo Zulu

BZs require an endorsement from the nominating squadron's CO and the appropriate CAG, wing commander, or MAG commander. In the case of helo dets, the CO of the ship will suffice. A 5-by-7-inch photo of the crew by a squadron aircraft should also accompany the BZ nomination. Please include a squadron telephone number so that we can call with questions.



LCdr. David W. Kindelspire  
Lt. Chris M. Riley  
Lt. Barry W. Kelley  
Lt. Eric W. Gardner  
Lt. Steven P. Hamilton  
VAW-121



Based on aircraft controllability and no apparent loss of hydraulic pressure, the E-2 diverted to NAS Roosevelt Roads, approximately 80 miles away.

As they flew toward Roosevelt

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*LCdr. Rominger flies with VF-211.*

December 1994 **approach**

23



Lt. Jeffrey T. Barr

### **Lt. Jeffrey T. Barr VT-28**

While returning to NAS Corpus Christi on a solo ferry flight from Selma, Alabama, Lt. Barr had an unsafe nosegear indication af-

ter entering the break at Corpus. He established himself in the Delta pattern, where a check by Tower and a sister squadron's aircraft confirmed a partially extended nosegear. Lt. Barr went through all the NATOPS

procedures to free the hung gear, without success.

Talking with representatives from his squadron, in the tower, and from Beechcraft, Lt. Barr burned excess fuel in preparation for an intentional nosegear-up landing.

He then made several low passes to gauge his setup for runway 13R, blowing his canopy on the last pass. On final for his last approach, Lt. Barr secured the engine and flew a dead-stick touchdown, holding the nose off the deck until minimum-control airspeed. He then flew the nose to the deck, with the aircraft stopping on centerline, approximately 1,200 feet from the initial touchdown point.

The problem with the gear was due to a failed linkage between the landing-gear motor and the nosegear. The aircraft received only minor damage and was back flying within two weeks.



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Lt. Barry W. Kelley  
Lt. Eric W. Gardner  
Lt. Steven P. Hamilton  
**VAW-121**

Bluetail 601 was returning to the carrier after a three-hour mission in the Puerto Rico Op Area. As Lt. Kelley (PAC) entered the overhead pattern (800 feet, 260 knots), the crew felt a short, violent shudder. They immediately heard a loud, metallic scraping sound. Lt. Kelley and Lt. Hamilton (PIC) were not sure what the problem was, but they leveled the wings and started a slow climb. They felt another shudder and heard the Air Boss call, "601, something just fell off your aircraft."

The pilots reported that they had control and continued climbing. Meanwhile, the crew in the tube (LCdr. Kindelspire, mission com-



mander, Lt. Riley, air control officer, and Lt. Gardner, radar officer) prepared for either ditching or bailing out. They discussed possible causes of the vibration and noise, while searching their PCLs for emergency procedures.

An S-3 joined on the E-2. Its pilot reported that the Hawkeye's complete starboard, outboard vertical fin was gone. The Hummer's crew was now concerned with the loss of hydraulics because of broken or missing rudder actuators. However, the S-3 pilot could not see any leaks. The E-2's instruments were also all indicating normal.

Based on aircraft controllability and no apparent loss of hydraulic pressure, the E-2 diverted to NAS Roosevelt Roads, approximately 80 miles away.

As they flew toward Roosevelt Roads, the pilots discussed potential controllability problems with squadron reps and air wing LSOs while the backend crew coordinated with the divert field for the emergency approach.

The pilots made two controllability checks (one at 12,000 feet and one at 5,000 feet) to assess their plane's slow-flight qualities and determine the best approach speed and configuration.

Lt. Hamilton used nearly all available rudder authority and trim to fly a straight-in approach, successfully engaging the short-field arresting gear.

Lt. Steven P. Hamilton

Left to right: LCdr. David W. Kindelspire, Lt. Chris M. Riley, Lt. Barry W. Kelley, Lt. Eric W. Gardner







Lt. Jeffrey T. Barr

**Lt. Jeffrey T. Barr  
VF-28**

While returning to NAS Corpus Christi on a solo ferry flight from Selma, Alabama, Lt. Barr had an unsafe nosegear indication af-

ter entering the break at Corpus. He established himself in the Delta pattern, where a check by Tower and a sister squadron's aircraft confirmed a partially extended nosegear. Lt. Barr went through all the NATOPS

procedures to free the hung gear, without success.

Talking with representatives from his squadron, in the tower, and from Beechcraft, Lt. Barr burned excess fuel in preparation for an intentional nosegear-up landing.

He then made several low passes to gauge his setup for runway 13R, blowing his canopy on the last pass. On final for his last approach, Lt. Barr secured the engine and flew a dead-stick touchdown, holding the nose off the deck until minimum-control airspeed. He then flew the nose to the deck, with the aircraft stopping on centerline, approximately 1,200 feet from the initial touchdown point.

The problem with the gear was due to a failed linkage between the landing-gear motor and the nosegear. The aircraft received only minor damage and was back flying within two weeks.

**Lt. Richard Foley  
Lt. John Ready  
VF-102**

Diamondback 112 was Dash 3 on a three-plane bombing mission over Dare County. As the F-14 crew pulled off target following the second pass, Lt. Foley (pilot) saw the master-caution light come on, along with a left-engine oil hot light. He told Lt. Ready (RIO), who broke out the PCL and reviewed procedures.

While climbing overhead the target to assess the situation, Lt. Foley saw the left engine's oil pressure fluctuate, then rapidly decrease to 5 psi. He secured the left engine and turned back toward Oceana.

The bi-directional pump initially picked up the combined-hydraulic pressure, but then began cavitating. Lt. Foley had to secure it as well.

The crew followed procedures for both "combined pressure zero" and single-engine cruise and approach, paying special attention to which systems would not be available with only the flight-hydraulic system.

With the squadron LSO, Lt. Don Walsh, on station, Lt. Foley touched down on the runway centerline, just before the short-field arresting gear. The Tomcat hook-skipped the wire, and although the jet did not have nosewheel steering because of the hydraulic failure, Lt. Foley kept it on the runway.

Postflight inspection showed that a locking ring on the left

engine's gearbox had failed, allowing oil to spray into the engine compartment, resulting in engine vibrations and high temperatures. The temperatures were high enough to scorch the gearbox area and flake away insulation.

If the crew had taken longer to assess the problems, the engine would probably have come apart in flight or caused a fire.

Left to right: Lt. John Ready, Lt. Richard Foley



# RED DECK

## -Wait!

By Lt. Ted Cossette

**T**he night started off clear, but it really gave new meaning to the word "dark." I was the copilot, getting ready for some night-landing practice with another HAC on my first LAMPS Mark III detachment.

Our crew was briefed and ready, waiting in the port helicopter hangar of our FFG 7-class frigate. We were all set to hot seat into one of our two SH-60B Seahawks for what was undoubtedly going to be a routine night shipboard bounce hop (if there is such a thing). I didn't know it then, but this was soon going to become one of those nights that would be burned in my memory long after retirement.

Sitting in the hangar, I adjusted my flight gear and listened to the bulkhead-mounted speaker relaying the ship's internal communications among the flight control stations as the other flight crew conducted DLQs.

Our landing safety officer (LSO), another detachment pilot, called the tower from his landing-control station, eye level on the flight deck.

"Tower, do you see the aircraft?"

Tower replied, "No, do you?"

The LSO came right back. "I saw them on final a second ago, but now I don't."

Suddenly, I felt the hair on the back of my neck stand on end. The air controller in our Combat Information Center (CIC) quickly spoke up: "Radar contact lost."

Tower requested that the Air Boss and my det OINC come up to the tower. I felt for the first time a knot in the pit of my stomach—it had to be the worst sensation in naval aviation. I was standing still, looking at my pilot and aircrewman in a state of disbelief as the eerie sound of the helo crash alarm filled the air.

The whole flight party seemed to be moving at once, as I made my way out onto the flight deck. I scanned the moonless sky, trying to spot the helo—hoping in vain that they had only lost communications and were out of the pattern troubleshooting, or that they had an electrical problem affecting their external lighting. They weren't. By now, with confusion building, word had filtered aft to the flight deck that the aircraft was indeed in the water and that communications had been established with all three downed crew members via their PRC-90 survival radios.

Thirty or more concerned shipmates had made it to the flight deck, armed with battle lanterns, flashlights, and floodlights to illumi-

nate the sea in all directions, frantically trying to spot the downed aviators. Our ship was maneuvering toward the spot where radar contact had been lost.

In anticipation of an emergency launch, the OINC ordered our second aircraft be traversed out of the starboard hangar and made ready. Our crew had briefed for the night bounce pattern, not this! The HAC re-briefed the aircrewman and me, emphasizing SAR procedures while our maintenance crew got the aircraft spread and ready in record time.

Word reached us that all three downed aircrew were OK and bobbing around in nine-foot swells. The wind was picking up as the ship's motor whaleboat launched with a full rescue crew. We preflighted the second bird and strapped in as the flight deck was cleared and all flight-quarter stations were remanned. We got both engines running and called for permission to engage the rotors. But now, the LSO reported that the ship's captain had said, "Wait."

I thought aloud, "Wait? What does he mean wait? Our buddies are in the water, and now we're supposed to wait?"

The Air Boss was up there with him. Why wouldn't he push for the go-ahead? But wait we did. By monitoring the radio, we learned that the motor whaleboat's radio had gone bad, leaving its crew unable to communicate with either the survivors or the ship. Minutes seemed to stretch into hours as we anxiously sat on deck. We tried calling in. If we could get word to the OINC and the captain about how ready we were, maybe they would let us go. Again, we were told to wait.

Over Guard, the downed aviators were announcing every pencil flare they launched, and that one guy was holding his strobe light in the air at arm's length. Finally someone on the O-3 level spotted a flare, and ship's signalmen started trying to move the whaleboat toward the survivors.

Meanwhile, another SH-60 in our battle group launched. At that point, we were ordered to secure. Feeling useless and frustrated, we dejectedly shut down. I made my way up to CIC, where I heard the airborne helo report that visibility was bad. But in spite of everything, the SAR crew located the downed aviators and requested to move in for the pickup. They were told to continue marking on top to help the whaleboat get to the scene.

Fighting the increasing seas, the whaleboat moved in and made a heroic rescue, bringing our healthy and soggy crew back to the ship.

Thinking about that night, there are a couple of important lessons I learned. Though I didn't realize it then, I can now understand our captain's wisdom in not launching us. He and the Air Boss had been

discussing at length when and whether to launch us, and they undoubtedly knew the right answers to some questions I have since asked myself.

Were we too close to the problem to overcome the general confusion? Were we ready to launch and fly at low altitude, in IMC? How good could our night vision have been after the flight deck had been flooded with light from the people searching the sea? Did our adrenaline rush make us solid, safe, professional pilots, or were we risking double disaster? Finally, were we really thinking about all that could have gone wrong on our launch? ◀

Lt. Cossette is currently the OINC of HSL-48's Det 2. This story took place in the Mediterranean Sea while he was deployed in USS *Boone*.

George Hall



# How to Make Glow

By Maj. M.J. Hengel, USMCR

**T**here I was, nine feet tall and bulletproof, with a high-gloss shine on my flight boots that would make a DI proud. I was an experienced instructor pilot in HMT-204. My section had launched out from MCAS New River on a weekend cross-country, arriving safely at our first destination.

The next afternoon, we departed single-ship for two instrument hops on an out-and-back to NAS Brunswick. We flew our en route portion at 6,000 feet MSL in IMC. The cloud bases were broken at 500 feet and 3 miles visibility. On our descent into Brunswick, we were stepped down to 4,000 feet and 3,000 feet, respectively. Approximately 10 miles out, we were cleared to 2,000 feet and vectored to the downwind for runway 1R. Local turned us over to the final controller with a dogleg turn to final and a clearance to descend to 1,600 feet.

Passing 1,750 feet, with a gentle 300-500 FPM rate of descent, I was hit with the dreaded spike through my right maxillary sinus (the one *below* your eye). I have difficulty describing the pain, except to say it was nearly disabling, and that I knew exactly what was happening (thanks to our aeromedical training), even though I had never had a sinus block before.

I simultaneously grabbed for the collective and keyed the ICS, trying to tell my copilot to stop descending. I was in so much pain that he couldn't understand me. We got back up to 2,000 feet with me pulling the

collective against my copilot's temporary desire (he was still trying to fly the GCA).

At this point, you can probably imagine the confusion between my crew and me, and the GCA controller and my aircraft. All I had communicated was, "Climb, I'm in pain!"

By pulling the collective and moaning some unintelligible words over the ICS, I quickly gave up trying to talk, raised my visor, and began pushing on the sinus area that seemed to be exploding. The final controller was still giving his required calls, which had degraded to, "On course, well above glideslope, too high for a safe approach..."

At approximately 2,100 feet, the pain subsided to a point of relative comfort so that I could talk to my crew. I explained what had happened. I asked my crew chief to get out my shaving kit, which contains a bottle of Afrin and aspirin. I was pretty sure it was my right sinus that had blocked, but I sprayed both nostrils, took two aspirin, and a hearty drink of water, which my crew chief provided.

While the crew chief was getting out the medicinal aids, I talked to GCA and again explained what had happened (without declaring an emergency for medical reasons). I believed that we could get the aircraft on deck with a little skillful instrument flying by my copilot. I asked him to fly the whole glideslope at no more than 300-fpm. He did a great piece of flying and was above glideslope, on course, all the way down the chute. We broke out around half a mile, and he landed us at midfield.



# Your Head

We taxied to parking for shutdown and a cold pump. I had pressure in my sinus area during the GCA, but nothing like the ice pick on the first approach.

Safely on deck, we now faced the question of whether to launch back to NAS South Weymouth. Looking back, I made a bad command decision and elected to try for South Weymouth. We returned at 3,000 feet.

The flight went well, with no more sinus problems. Sunday morning, when I woke up, there was a trace of blood on my pillow and in my right nostril. Also, the area *above* my right eye was tender. I decided then to tell the flight surgeon when I got home, to take each additional leg one at a time, and not press any further if the block returned. I understand now that I was already pressing.

We returned to MCAS New River in VMC at 500-1,000 feet. I had no problems at all with my sinus, and we completed the training.

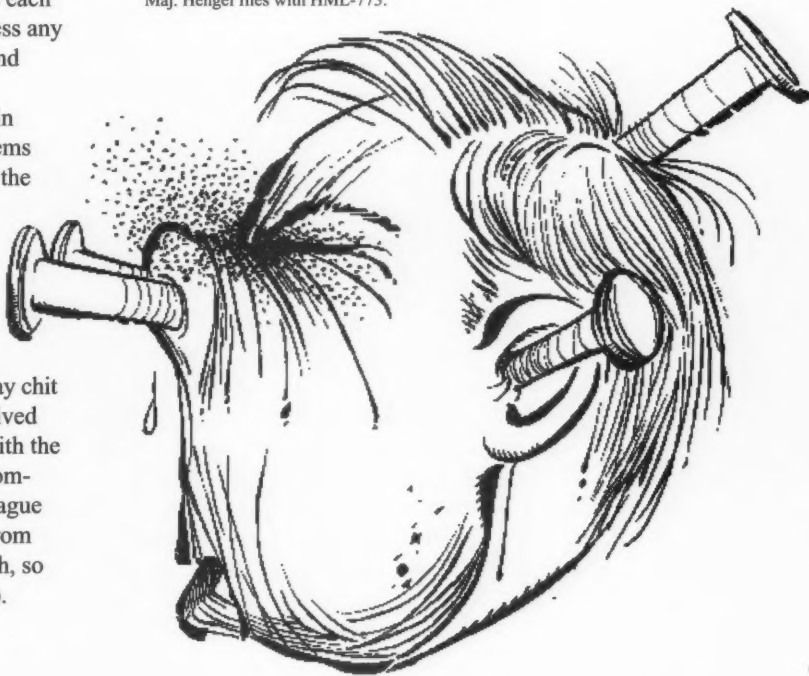
On Monday, the flight surgeon was at the squadron right after sick call. I explained what had happened over the weekend, in the private confines of the ready room. She was very concerned and wrote me out an x-ray chit for an 8x10 glossy of my sinuses. I received the grounding notice when I returned with the picture. The x-ray showed an almost complete opacification (white-out or major league blockage) of the right maxillary sinus from barotrauma. (You'll never learn so much, so fast, as when it affects your own health).

Over the next six weeks, I sat through four normal x-rays and one set of CT scans of my sinuses. My head was starting to glow in the dark. In the middle of the seventh week, I finally received my prized up-chit.

Several interesting lessons can be learned from my trip. First, a sinus block can occur at any time and not just after a cold or runny nose. During the entire episode, I never felt bad physically, and in fact ran a marathon during my recovery phase.

Second, after landing the aircraft successfully at NAS South Weymouth, I began to test my luck. In this story, I was fortunate and emerged with just a six week layoff. I could have done long-term damage to my sinuses and would have been forced to entertain alternate employment opportunities. ◀

Maj. Hengel flies with HML-773.



**We** were flying an instrument out-and-in, fighting a strong headwind at 20,000 feet. At our fuel flow setting, we would reach our destination with 3,000 pounds. Suddenly, a sound like a champagne cork's muffled escape from its bottle intruded on my thoughts of fuel figures and flight times. My face puffed up against my oxygen mask. It felt like my eyes were trying to jump out of their sockets.

The canopy seal had just deflated, and we had experienced a rapid decompression. I looked down at the cabin altimeter, which had been reading 8,000 feet two seconds before. Now, it was showing 20,000 feet.

"We've lost cabin pressure," I said over the ICS. Both of the backseaters said that they felt fine and were on oxygen. Fortunately, we were VFR.

I told the crew that I would start a descending turn to 15,000 feet and head directly back to NAF Atsugi, our home field. We set a course direct to homeplate, and started to discuss what had happened. We went through the checklist, which clearly defined dizziness, tingling, pain in the joints or nausea as the symptoms of decompression sickness (DCS). Nobody felt any of these symptoms, so I felt more relaxed as we flew toward home. The depressurization had been caused by a popped circuit breaker from the environmental control system. The gear-hook circuit breaker had also popped, which meant that we faced a few more interesting challenges on the return trip home.

We radioed ahead to alert the squadron duty officer and safety officer. Thanks to good crew coordination and solid judgment, we got our jet in the normal landing configuration and took a short-field arrestment. I was happy to be on deck and did not realize that

*Gone*

By Lt. Sherman Baldwin



the real emergency was still in progress within my own body.

Our conscientious safety officer had already called the air wing's flight surgeon before we had landed and told them that we would be over immediately to check for DCS. All four of us went to medical and got a thorough exam by the doc, who grounded us for 48 hours to make sure that the decompression had no lingering effects.

Doc told us the statistics on decompression sickness, and none of us was worried. Cases of DCS are unusual below 25,000 feet, and then only if you are above 20,000 feet for more than five minutes. It's rare to get DCS below 20,000 feet. We had been at 20,000 feet for approximately one minute and then took two minutes to descend to 15,000 feet. I was confident that I was safe from what divers call "the bends." I was wrong.

The next day, during an awards quarters, I was standing at the head of my division at

# round the Bends



parade rest as the skipper handed out various awards to many of our hard-charging sailors. It was the first time that I noticed the pain. It wasn't so much a pain as just a dull ache somewhere in the center of my knee. It felt as though it radiated up and down my leg, but I couldn't really pinpoint the location.

After quarters, I started walking around, and the ache wasn't as noticeable, so I didn't think about it again. That afternoon, I went for a four-mile run, which is something that I do several times each week. I have run regularly for years, and I knew that the pain I was feeling after my run was not normal.

The next morning, I had my bags packed for a long weekend cross country to go skiing in northern Japan. I had planned the trip two weeks ago, and I was really excited about going. However, the pain in my knee was still there.

After debating it most of the morning, I finally gave in to my better judgment and

went to medical. After a quick physical exam, the flight surgeon had the good sense to call the nearest Navy dive locker, a 90-minute drive from the base. I was placed on oxygen and rushed into an ambulance.

Thoughts of a career-ending disability flashed through my mind as the driver raced to the repressurization chamber. During the drive, Doc gave me an in-depth description of what had happened to me and what we needed to do to correct the problem.

DCS occurs when the body is unable to keep inert gases such as nitrogen in solution because of a rapid change in pressure around the body. When our cabin pressure soared from 8,000 to 20,000 feet, it was the same as a diver surfacing rapidly from the depths to the surface with no respect for the powerful pressure differential. With the decreased pressure at higher altitude, the nitrogen in solution in my tissues was able to escape into

*If an aviator experiences a rapid decompression at high altitude, the first priority is to ensure all aircrew are on oxygen, then descend to 15,000 feet or below.*

its gaseous state and form bubbles on the cartilage of my knee.

The danger was that these bubbles could migrate into my nervous system. The repressurization chamber would put enough pressure back onto my body so that the bubbles would be able to reenter the solution in the tissues from where they had originally came. Divers go through this ordeal on a regular basis, but it is an unfamiliar and frightening experience to aviators.

What was even worse was the fact that I was going to spend the next six hours in a small pressure capsule that measured seven feet by four feet by four feet, instead of racing down the ski slopes. There was barely room to lie down, and part of the treatment was to breathe oxygen while in the chamber. For the nearly six hours, I had an oxygen mask strapped to my face. I was accompanied into the chamber by a Navy diver who monitored my vital signs and would help if anything went wrong in the chamber.

The dive medical officer (DMO) followed a specific pressure table, which called for a repressurization to 60 feet below the surface. As I breathed oxygen, the chamber's air pressure dropped, so that my Navy diving friend and I were soon 60 feet down under. Soon after arriving at this depth, the pain in my knee disappeared. The DMO was convinced that I had suffered from Type 1 DCS. Fortunately, Type 1 DCS is the type that does not end an aviator's flying career, so I am back up and flying again.

Type 2 DCS is more serious and involves neurological symptoms, such as tingling or loss of feeling, blurred vision or blindness,

loss of balance and loss of certain motor skills. A Type 2 DCS diagnosis grounds aviators, as does a recurring case of Type 1 DCS. However, both cases are waiverable for a designated aviator. DCS is a mysterious illness. It is common for a group of divers to make the same dive in terms of depth, duration and diving techniques, and find that only one of the divers develops DCS symptoms.

I was the only one of four aviators in our jet to experience these symptoms. It is unpredictable and dangerous. The best precaution for aviators is to breathe oxygen, for it reduces the amount of inert nitrogen in your tissues, thus reducing the likelihood of bubble formation in the event of a rapid decompression.

If an aviator experiences a rapid decompression at high altitude, the first priority is to ensure all aircrew are on oxygen, then descend to 15,000 feet or below. Monitor all aircrew for hypoxia and land as soon as possible if anyone is showing the symptoms of hypoxia.

Once on deck, get checked out by the flight surgeon and do not exercise for 48 hours. Exercise after a decompression incident has proven to increase the risk of bubble formation, as most likely occurred in my case.

Aviators know very little about DCS. The lesson to be learned is simple: Don't mess with it. If you think you may have it, it is far better to be safe than sorry, because migrating bubbles in your nervous system can easily cause paralysis and can be fatal. ◀

Lt. Baldwin flew with VAQ-136 at the time of this incident. He is currently assigned to BUPERS.



# The Pelican, Briefly

By Lt. Will Castle



We were returning from Pensacola at about 500 feet and exactly 150 KIAS in an MH-53E. It was a gray day, and it looked like it might rain at any time. I pulled my visor up.

Ten miles from homeplate, from out of nowhere, two particularly large brown pelicans appeared at 11 o'clock high. Collision was a certainty. I had enough time to blurt, "Hold on" over the ICS, but not nearly enough to pull my visor down before the midair with "Dash 2."

The sound of a pelican coming through the plexiglass at 150 knots resembles that of a train wreck. Pieces of the bird and shards of plexiglass whizzed by me. I was instantly covered with the vital organs of my feathered foe. The rush of air, coupled with a severed

water line, fed a continuous, bloody, malodorous mist into the cabin.

My shocked and grossed-out crew gave me a quick check to ensure that the blood all over me wasn't mine. Luckily, it wasn't.

My copilot, who was flying by this time, set us up for landing, and I assisted as much as I could, hindered by the continuous bloody mist. We landed without incident a few minutes later.

By now, you have guessed that this is yet another "wear your visor" sermon by a guy who didn't. I consider myself lucky. One of those jagged pieces of plexiglass could just as easily have hit me in my eye, causing significant discomfort, and possibly a new nickname. ◀

Lt. Castle is a project pilot for the Coastal Systems Station in Panama City, where he flies both the MH-53E and the HH-1N. He previously flew MH-53Es with HM-14.

I REALLY TIED  
ONE ON LAST NIGHT...



**I'll Never Drink Again!**  
Driving drunk is a one-way trip to the morgue

